

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
3 June 2004 (03.06.2004)

PCT

(10) International Publication Number
WO 2004/045767 A2

(51) International Patent Classification⁷: **B01J 37/00**

(21) International Application Number:
PCT/EP2003/012884

(22) International Filing Date:
18 November 2003 (18.11.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0227081.7 20 November 2002 (20.11.2002) GB

(71) Applicant (for all designated States except US): EXXONMOBIL RESEARCH AND ENGINEERING COMPANY [US/US]; 1545 Route 22 East, Clinton Township, Annandale, NJ 08801 (US).

(71) Applicant (for GB only): EXXONMOBIL CHEMICAL LIMITED [GB/GB]; P.O. Box 122, 4600 Parkway, Solent Business Park, Whiteley, Fareham, Hampshire PO15 7AP (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): MALEK, Andrzej

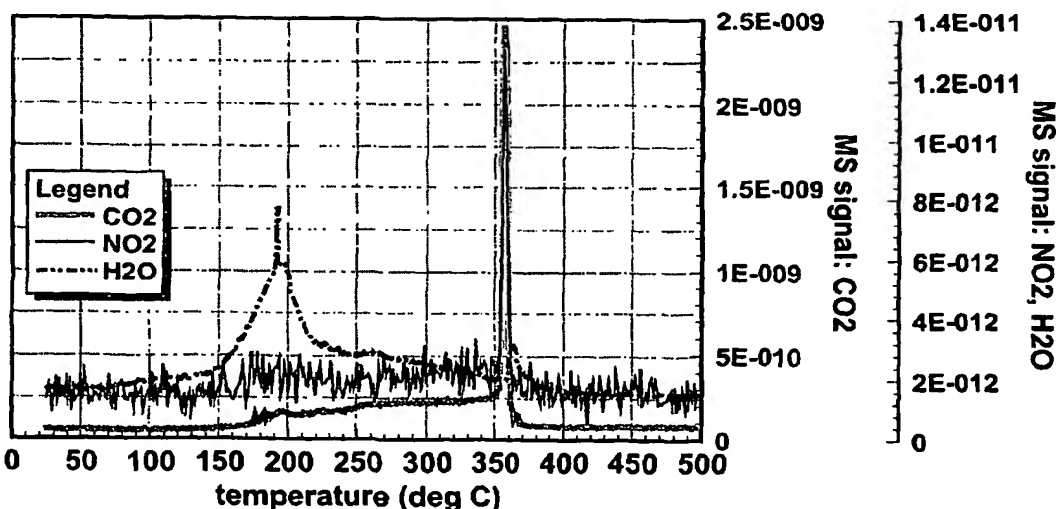
[CA/US]; 5436 Windtree Drive, Doylestown, PA 18901 (US). VARTULLI, James, Clarke [US/US]; 89 Bartlett Drive, Schwenksville, PA 19473 (US). SOLED, Stuart, Leon [US/US]; 21 Cooks Cross Road, Pittstown, NJ 08867 (US). MISEO, Sabato [US/US]; 770 County Road 579, Pittstown, NJ 08867 (US). FEELEY, Jennifer, Schaefer [US/US]; 59 Old Mountain Road, Lebanon, NJ 08833 (US). CASTY, Gary, L. [US/US]; 1001 Autumn Ct., League City, TX 77573 (US). KISS, Gabor [US/US]; 4 Thomas Court, Hampton, NJ 08827 (US). DYSARD, Jeffrey, M. [US/US]; 10 Thompson St., Bernardsville, NJ 07924 (US). BAUMGARTNER, Joseph, Ernest [US/US]; 179 Raritan River Rd., Califon, NJ 07830 (US). KLIEWER, Christine, E. [US/US]; 5 Austin Hill Rd., Clinton, NJ 08809 (US). RAGOMO, Steven, T. [US/US]; 468 Longleaf Dr., Perkasio, PA 18944-5413 (US).

(74) Agents: DEW, Melvyn, John et al.; ExxonMobil Chemical Europe Inc., P.O. Box 105, B-1830 Machelen (BE).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR,

[Continued on next page]

(54) Title: METHODS FOR PREPARING CATALYSTS



(57) Abstract: The present invention is directed to processes for preparing supported metal catalysts comprising one or more catalytically active metals applied to a porous catalyst support and to processes that use such catalysts. The process requires the formation of an organic complex during the manufacture of the catalyst which after its formation is either partially or fully decomposed before reduction of the metal to form the catalyst. The catalysts have high levels of metal dispersion and uniform distribution of catalytically active metals on the support. The catalysts obtained from the processes are particularly effective in catalysing Fischer-Tropsch reactions and as adsorbants for the removal of organosulfur compounds from hydrocarbons.